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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/532,224

03/14/2006

Greg Harris

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EXAMINER

LAMB, BRENDA A

ART UNIT

PAPER NUMBER

1792

NOTIFICATION DATE

DELIVERY MODE

02/03/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@hahnlaw.com  
akron-docket@hotmail.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/532,224	<b>Applicant(s)</b> HARRIS ET AL.	
	<b>Examiner</b> Brenda A. Lamb	<b>Art Unit</b> 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6,7,11,12,18 and 20-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,7,11,12 and 18 is/are rejected.
- 7) ☒ Claim(s) 20-25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

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A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 10/16/2009 has been entered.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear how the stainless steel layer containing nitrogen in claim 12 relates to the stainless steel layer containing nitrogen and carbon set forth in claim 4 upon which claim 12.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to

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be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3-4 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan 07-278754.

JP '754 teaches the design of a hot dip coating apparatus which is comprised of the following elements: a bath of molten coating alloy containing A1-Zn alloy; at least one component immersed in the bath of coating alloy containing A1-Zn alloy, the at least one component having a surface that comes into contact with the bath when in use, wherein the at least one component is made from stainless steel. JP '754 teaches the component can be made of stainless steel composition having a greater than 0.1 wt % of nitrogen, a known austenite stabilizer, to increase corrosion resistance and inherently the nitrogen is distributed substantially uniformly throughout its microstructure since it is known in casting the components of the metal in a molten state that the

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components are uniformly dispersed therein. Further, JP '754 teaches that the weight range of carbon in its stainless steel overlaps the range set forth in the instant application. Thus every element of the claimed apparatus as set forth in claim 1 is taught by JP '754. With respect to claim 3, JP '754 teaches parts of the hot dip coating apparatus which comes in contact with the A1-Zn alloy and the at least one component of the hot dip coating apparatus is a sink roll. JP '754 sink roll, known to be positioned in the A1-Zn alloy dip coating apparatus bath, is positioned such that a steel strip is capable of traveling relative to the sink roll in the manner set forth in the claims since it teaches every element of the apparatus. Note it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ 2d 1647 (1987). "[A]pparatus claims cover what a device is, not what a device does." Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). With respect to claim 4, the recitation that at least one layer of the component is made of a stainless steel having a greater than 0.1 wt % of nitrogen does not structurally further limit the JP '754 apparatus over that of applicant since JP '754 entire component is made of a stainless steel within the scope of the claim. The same rejection applied to claim 3 is applied to claim 11.

Claims 6-7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 07-278754.

JP '754 is applied for the reasons noted above. JP '754 fails to teach the at least one component includes a further layer and the above recited stainless steel layer is disposed between the surface and the further layer. However, it would have been prima facie obvious to modify the JP '754 roll by providing an additional layer of the recited stainless steel layer over the recited materials for the obvious advantage of increasing the wear resistance of the roller.

Claims 1, 3-4 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by HANDA ET AL 5,783,143.

HANDA ET AL teaches the design of a hot dip coating apparatus which is comprised of the following elements: a bath of molten coating alloy containing A1-Zn alloy; at least one component immersed in the bath of coating alloy containing A1-Zn alloy, the at least one component having a surface that comes into contact with the bath when in use, wherein the at least one component is made from stainless steel. HANDA ET AL teaches the component can be made of stainless steel having a greater than 0.1 wt % of nitrogen, a known austenite stabilizer, to increase corrosion resistance and inherently the nitrogen is distributed substantially uniformly throughout its microstructure since it is known in centrifugal casting the components of the metal in a molten state that the components are uniformly dispersed therein. Further, HANDA ET AL teaches that the weight range of carbon in its stainless steel overlaps the range set forth in the instant application. Thus every element of the claimed apparatus as set forth in claim 1 is taught by HANDA ET AL. With respect to claim 3, HANDA ET AL teaches parts of the hot dip coating apparatus which comes in contact with

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the A1-Zn alloy and the at least one component of the hot dip coating apparatus is a sink roll. HANDA ET AL sink roll, known to be positioned in the A1-Zn alloy dip coating apparatus bath, is positioned such that a steel strip is capable of traveling relative to the sink roll in the manner set forth in the claims since it teaches every element of the apparatus. Note it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ 2d 1647 (1987). "[A]pparatus claims cover what a device is, not what a device does." Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). With respect to claim 4, the recitation that at least one layer of the component is made of a stainless steel having a greater than 0.1 wt % of nitrogen does not structurally further limit the HANDA ET AL apparatus over that of applicant since HANDA ET AL entire component is made of a stainless steel within the scope of the claim. The same rejection applied to claim 3 is applied to claim 11.

Claims 6-7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over HANDA ET AL 5,783,143.

HANDA ET AL is applied for the reasons noted above. HANDA ET AL fails to teach the at least one component includes a further layer and the above recited stainless steel layer is disposed between the surface and the further layer. However, it would have been prima facie obvious to modify the HANDA ET AL roll by providing an additional layer of the recited stainless steel layer over the

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recited materials for the obvious advantage of increasing the wear resistance of the roller.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ookouchi et al 5,571,327 in view of Japan 07-278754 (hereinafter referred to as JP '754).

JP '754 is applied for the reasons noted above. JP '754 fails to teach passing the steel strip about the component within the molten coating alloy. However, Ookouchi et al teaches an apparatus and method of coating a steel strip manufacturing a sink roller for a hot dip coating process wherein the sink roller is constructed by casting using an austenitic stainless steel material and shows that the steel strip travels about the component or sink roll which is immersed in the bath. Therefore, it would have been obvious to modify the Ookouchi et al process for manufacturing a sink roller by casting using another known austenitic stainless steel material such as taught by JP '754 for the taught advantage of his austenitic stainless steel material – increased service life in high temperature environments. Thus claim 18 is obvious over the above cited references.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ookouchi et al 5,571,327 in view of HANDA ET AL 5,783,143.

HANDA ET AL is applied for the reasons noted above. HANDA ET AL fails to teach passing the steel strip about the component within the molten coating alloy. However, Ookouchi et al teaches an apparatus and method of coating a steel strip manufacturing a sink roller for a hot dip coating process wherein the



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sink roller is constructed by casting using an austenitic stainless steel material and shows that the steel strip travels about the component or sink roll which is immersed in the bath. Therefore, it would have been obvious to modify the Ookouchi et al process for manufacturing a sink roller by casting using another known austenitic stainless steel material such as taught by HANDA ET AL for the taught advantage of his austenitic stainless steel material – increased service life in high temperature environments. Thus claim 18 is obvious over the above cited references.

Applicant's arguments filed 10/16/2009 and 11/18/2009 have been fully considered but they are not persuasive.

Applicant's argument that both HANDA ETAL and JP '754 each fail to teach or suggest its steel composition includes a low carbon content of less than 0.03 wt% is found to be non-persuasive. Both HANDA ETAL and JP '754 teach or suggest the carbon content of its steel composition is less than or equal to 0.17 wt% and the lower portion of the carbon weight range of its steel composition overlaps applicant's carbon content.

Claims 20-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda A. Lamb whose telephone number is (571) 272-1231. The examiner can normally be reached on Wednesday-Friday and on alternate Mondays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton, can be reached on (571)272-1465. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brenda A Lamb  
Examiner  
Art Unit 1734

/Brenda A Lamb/

Primary Examiner, Art Unit 1792